US010003926B2

(54) **PREDICTING HUMAN MOVEMENT BEHAVIORS USING LOCATION SERVICES MODEL**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days. days.

(21) Appl. No.: **15/304,541**

(22) PCT Filed: **Sep. 16, 2014**

(86) PCT No.: **PCT/IB2014/064554**

§ 371 (c)(1),
(2) Date: **Oct. 17, 2016**

(87) PCT Pub. No.: **WO2016/042357**

PCT Pub. Date: **Mar. 24, 2016**

(65) **Prior Publication Data**

US 2017/0195854 A1   Jul. 6, 2017

(51) **Int. Cl.**
H04W 24/00	(2009.01)
H04W 4/02	(2018.01)
H04W 4/04	(2009.01)
G06F 17/30	(2006.01)
G06N 7/06	(2006.01)
G06Q 10/06	(2012.01)
G06Q 30/02	(2012.01)

(52) **U.S. Cl.**
CPC *H04W 4/028* (2013.01); *G06F 17/301* (2013.01); *G06N 7/06* (2013.01); *G06Q 10/063* (2013.01); *G06Q 30/0269* (2013.01);

H04W 4/021 (2013.01); *H04W 4/025* (2013.01); *H04W 4/04* (2013.01); *G06Q 30/02* (2013.01)

(58) **Field of Classification Search**
CPC H04W 4/028; H04W 4/021; H04W 4/025; H04W 4/04; H04W 4/02; G06F 17/301; G06N 7/06; G06Q 10/063; G06Q 30/0269
USPC 455/456.1, 456.3
See application file for complete search history.

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(57) **ABSTRACT**

Human behavior may be predicted by building a model of people's physical movements along with a model that represents their affinities to various ontological elements, and their relationships to other people. The model may include a graph of interrelated people, as well as their hobbies, interests, employment, and other elements. The model may be analyzed by simulating people's activities as those activities interact with real or hypothetical networks. The real networks may be used to verify the model by comparing measured parameters to predictive parameters derived from simulation to calibrate the models. A calibrated model may then be used with a modified or hypothetical network to analyze the effects of changes to the real network.

18 Claims, 16 Drawing Sheets

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METHOD FOR PERFORMING ANALYSIS ON A NETWORK REPRESENTATION